



## Installation manual for the C42/52 cowl flap

### I. General:

Cowl flap for C42B/C and C52 allows to considerably shorten warm-up period of the engine and to keep oil cylinder head temperature during flight operations in optimal range of 90-110°C.

Annoying covering of the cowl flap in cold weather is a thing of the past. As a result, optimally regulated engine temperatures as well as shortened warm-up period of the engine minimizes fuel consumption and prolongs the life span of the engine.

Installed temperature warning sensor (red warning light) will notify that the flap is not opened.

### II. Mechanical Installation:

- Dismantle lower cowling.
- Put on the housing of the cowl flap and fix it with 2 screws M4 at the upper and lower inlet lips.
- In flight direction left, about 10 cm from below cut a slot for the Bowden cable in the GRP sealed radiator surface of the cowling (e.g. with a small drill or round file).
- Assemble lower cowling, push the Bowden cable through the cut slot, lay it upward and push through the central firewall aperture.
- Secure the Bowden cable with cable ties against contact with hot exhaust parts.
- Fasten the actuating lever to the hinge bar with 2 x M5 countersunk head screws and locking nuts (left at pilot's side).
- Lead the Bowden cable under the instruments panel to the actuating lever, adjust the length with a clamping screw and clamp it.
- After functionality test secure the Bowden cable with cable and sleeve and shrink tubing and cut off the supernatant Bowden cable.

### III. Electrical Installation:

- Dismantel free temperature sensor at the front left cylinder.
- Mount the temperature switch, move up the sensor cable with abrasion protection between both left cylinders and push it through the central firewall aperture.
- In the appropriate place at the pilot's side drill a hole for the warning light and mount it.
- Connect the sensor cable with a cable shoe to the warning light.
- Connect the second port of the warning light with instruments " + ".
- Make functionality test with turned on main switch by removing the sensor cable from the temperature switch and hold it against mass.

**The light must be on.**



#### **IV. Operating Instructions:**

- Before starting the cold engine the cowl flap can now be closed with the actuating lever.
- When reaching the cylinder head temperature of about 90° C the cowl flap can be again fully or partially opened depending on the outside temperature.
  
- In case the flap was forgotten to be opened, the red warning light will light up when the cylinder head temperature reaches 130° C. The cowl flap should be then forthwith fully opened as well as the engine output should be reduced if possible so that to allow for an immediate cooling down of the engine.
- For dismantling the lower cowling (100 h control, oil change) the Bowden cable can be disconnected directly on the cowl flap. For that, after removal of the circlip it is necessary to pull the cotter bolt and by unscrewing the lentil-flange head screw (long Allen key) to remove the Bowden cable holder. The cowling can be now dismantled without problems.
- Assembling can be carried out in reversed order.

**Comco Ikarus GmbH**